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ABSTRACT

Taking a Vygotskian perspective, this monograph focuses on the quality of interaction between children and staff in Australian child care and education programs. Aspects of quality interaction are presented through examples of interaction and through personal stories of staff analyzing their interactional patterns through video and audiotapes. Section 1, "When Adult Talk is Quality Interaction," describes characteristics of quality interaction, focusing on the interaction's context, its temporal focus, children's level of interest, and the level of response required. Section 2, "Establishing Common Knowledge," emphasizes seeking information from parents as a basis for interaction. Section 3, "Listening to Children," highlights listening and responding to children and suggests using tape recording to analyze one's communication practices. Section 4, "Positive Modelling," describes how one child care worker used a tape recording of his interactions to identify positive and negative statements, while section 5, "Warm and Friendly Interactions," discusses using videotapes to analyze staff interactions with infants. Section 6, "Children as Individuals," examines how a child-centered philosophy may obscure practices that promote highly gender-biased attitudes and behavior and how gender equity programs may counteract socialization of gendered behavior by children. Section 7, "Staff Interact with Children to Stimulate Curiosity and Thinking," discusses scaffolding to interact with children in their zone of proximal development. Section 8, "Socially Constructed Learning," lists characteristics of the staff role, the child role, and how learning is viewed. The conclusion section lists questions for self-analysis regarding staff interaction with young children. Contains 23 references. (KDFB)

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Staff–Child interactions

A Vygotskian perspective

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Staff–Child interactions

Marilyn Fleer

Foreword

Thinking about what is done and why, about whether it can be done better and how, is a process which is at the heart of improved practice in child care no less than in any other field.

The Accreditation and Beyond Series supports that process in practical way.

Each of the books in the series puts ideas about good practice up against the understandings about children and their needs on which they are based. This is done deliberately. There are no recipes for good practice. There are, however, principles that can be used as a benchmark for deciding whether what is being done is good for children and the people who work with them. Many of these are drawn out in this series.

The impetus for the series was to provide practical support to services participating in the Quality Improvement and Accreditation System. However, it is also intended that the series be an ongoing reference for early childhood professionals and services working to provide quality care for children.

It is not meant to be a final statement on any of the areas it covers and the range and depth of the series is deliberately diverse as is the child care sector.

Staff–Child interactions: A Vygotskian perspective uses the experience of early childhood workers in child care services to focus on the most important part of the child care program — the quality of the interaction between the children and staff. It looks at the way quality staff–child interactions are defined, what they look and sound like, and how they feel .

Other titles in the series are:

- Babies need more than minding: Planning programs for babies and toddlers in group settings;
- The very best of care and education: Many ways to the Quality Improvement & Accreditation System;
- The policy handbook: Developing policies in child care;
- Surviving Accreditation: A QIAS ideas bank;
- Highlighting health: A discussion of health practices and accreditation; and
- Thought for food: A starting point for children's nutritional meals.

AECA hopes that these books will assist in making the accreditation experience rich, constructive and successful, and that the series will be an ongoing resource to services.

Tonia Godhard
President

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Introduction

The most important part of a centre's program is not the resources available to children, but the quality of interaction between staff and children. A richly resourced centre with minimal staff–child interaction is a poor substitute for a centre where staff are actively involved in talking, sharing and listening, as well as positioning themselves to facilitate eye-contact and warm physical contact. However, how do you define what quality staff–child interaction looks like, feels like, and sounds like? Interaction is not just what is said, but a whole body response to a child.

This book will feature a range of ways of interacting with children. The variety of adult–child talk and its implications for children's development and learning will be discussed. In particular, this publication will focus on:

- when adult talk is quality;
- establishing common knowledge;
- listening to children;
- positive modelling;
- warm and friendly interactions;
- children as individuals; and
- stimulating curiosity and thinking.

Aspects of quality interaction will be presented through examples of the interaction process and through the personal stories of staff analysing their own interactional patterns when working with infants, toddlers, and preschoolers. Many of the scenarios given represent either intuitive or planned interaction commonly found in centres offering quality programs. This will be reaffirming for many. By describing quality interaction staff, can systematically work towards planning for this very important element of their program. It is this latter aspect that may be new to some staff — planning for quality interaction!

As with other aspects of a quality program, staff need to observe (or analyse) their own interactional patterns before they can decide how best to plan for the most appropriate interactional patterns for their group of children. A number of staff development stories are presented as a way of sharing the simplicity as well as the complexity of self-study for improving staff–child interaction.

When adult talk is quality interaction

Many people have tried to describe quality adult–child interaction. Tizard & Hughes (1985) have looked closely at how mothers interact with their children and what their interactional styles mean for children's language development. This work suggests that the richest language environment available to children is where adult–child talk is like that which occurs between mothers and their children (as described by Tizard & Hughes, 1985). Where interactions are initiated by children, where parents spend time listening to their children, and where parents provide information to their children within the context of a meaningful situation — often at the request of the child — quality interaction is occurring.

David (1989) has suggested that many lost opportunities for fostering children's development and learning occur when adults generally stand back or where interaction is focused on activities, such as packing away, which are procedural or management activities, rather than conceptually focused interactions such as why, how, when, or where responses to children. However, others have suggested that it is important to not interfere as children play (Bruce, 1991; Moyles, 1989). Yet a great deal of recent research is showing that when adults stand back, rarely interacting, and where children only play with each other, following interactional patterns established at home, gender stereotyping is fostered (MacNaughton, 1992), some children do not feel safe (Main, 1994), and many learning opportunities are not optimised (Fleer, 1992). It is becoming clear that inaction or minimal adult–child interaction is depriving children of their right to quality care and education. But how and in what context is adult talk demonstrating quality interaction?

Hutt *et al.*, (1985) have looked closely at how children play and found a range of different types of play, suggesting a need for a variety of adult–child interactions necessary in each context. Clearly, adult–child interaction is not a static process, but a dynamic and fluid activity which is dependent upon the context and the child's needs. There is not one way of interacting, but many. For example, Makin (1995:5), in her research on adult–child interaction, has categorised interaction into at least four groups. She states that children can be commanded:

- to be (for example, to be good);
- to act (for example, go and get it);
- to attend (for example, look at this one); and
- to cognise (for example, now you have to decide) (Makin, 1995:5).

Makin (1995) suggests that it is possible to gain some idea of whether the orientation of centre-based conversations are reflective and thoughtful or if they predominantly focus on commanding

children to be, act, attend, or cognise. Makin's research also indicates that there are different levels of responses required of children during adult–child interactions. For example, some interactions are absolute; that is, there is no room for children to negotiate (for example, 'Glue it here!').

Interactions may also be context bound, that is, specific to the immediate situation. Often little opportunity is given for children to think about what they are doing in relation to the wider situation e.g. 'This frog looks like the frog we saw in the dam.' Here insight is offered by the adult in the form of supportive information such as how it is to be done or how it fits within the wider perspective (Makin, 1995:5).

Finally, interactions can be temporally focused. For example, interactions which relate to the 'here and now' (such as 'What are you doing?') versus interaction which deals with past or future events ('Do you remember when?', or 'What will we be doing tomorrow?'). Cultural differences may be evident in interactional patterns in terms of temporal factors. Some cultures may be more focused upon the 'here and now', while others may provide more opportunities to discuss past and future events.

It has been suggested that the level of interest in a child can be determined by the type of question asked (Makin, 1995). If questions are merely a 'display' of interest rather than 'genuine' interest — that is, if the teacher is actually seeking information to which she does not already know the answer — then quality interaction is occurring. For example, 'What colour are your new shoes?', 'Where did you buy them?'. The responses to these display questions are likely to be 'brown'; 'at the shops'. Questions which are more likely to show genuine interest on the part of the adult are: 'You have new shoes. They look like Mary's shoes' (Mary joins conversation.) 'Let's see what is different. Did you go with daddy to buy them? Can you tell me about what happened?' 'Was it the same for you, Mary?'

Clearly, adult–child interaction is a complex activity influenced by family, culture, and cross-cultural factors — particularly when, as Makin (1995) suggests, what is often overlooked in discussions of quality talk is 'the important background assumption that there is a match between the language(s) spoken by the family and that spoken by the teacher'.

In the following section, strategies for establishing shared understanding between staff, children, and families will be given.

Establishing common knowledge

Staff seek information from parents as a basis for interaction

Children have a range of experiences and an innate capacity which have shaped their development and ensured that each child entering child care is special. In planning for these individuals we need to not only find out about each child's development but also develop an understanding of children's home experiences so that we too can draw upon and extend these experiences. Edwards and Mercer (1987) have shown the importance of developing some form of common knowledge between staff and children. If we are able to tease out those experiences which are significant (as well as common in families), we will be in a better position to interpret children's actions and hence be able to listen effectively and plan appropriately for each child. In the following conversation the mother and the two-year-old child have common knowledge about the Matchbox toys and the associated limited language of the toddler. However, the other adult, Jeremy, does not.

Child: *Truck (looking at Jeremy, holding Matchbox truck).*
Jeremy: *(Smiles and looks at child.) Yeah.*
Mother: *You're showing Jeremy your trucks.*
Child: *(Nods, and continues to look at Jeremy.) Truck. Two three, two three (pointing to two Matchbox trucks directly in front of her).*
Jeremy: *(Smiles and looks at child.) Trucks.*
Mother: *You're telling Jeremy that you have lots of trucks.*
Child: *Back truck (pointing over her shoulder).*
Jeremy: *(Looks in direction of point. Unclear of child's intentions.)*
Mother: *There are more trucks back there.*

In the conversation above, it is clear that the mother and child have established common understanding, not just about the child's experiences but also about what the child's limited vocabulary means. The mother understands exactly what the child is trying to say. The other adult, Jeremy, is unclear. The child's language is meaningless for Jeremy. He has not been involved in the establishment of their common knowledge base (language, gestures, and context). As a result, the mother must interpret for Jeremy in order for the conversation between Jeremy and the child to be meaningful.

This is not an uncommon experience for us. Most staff work with a range of children, and we are often in a position where we must try and work out what a child is attempting to communicate. Over

time we develop a base of common knowledge between the whole group of children and the adults who interact with them. However, this common knowledge is often centre-based only. That is, it is the experiences in the centre, and the language associated with the centre, which are common knowledge. Yet there is a wealth of language and experience outside of the centre that staff cannot easily unravel. This experience emerges, but the language profile of the child makes it difficult for the adult to interpret what is meant. This is particularly so for toddlers. For interaction between staff and children to be most effective, a crossing of the boundaries between home and the centre is necessary. Staff can facilitate this by providing boundary-crossing opportunities with families. Many staff in centres already do this intuitively; however, it is usually focused on what took place in the centre. Below is an example of high-quality interaction between a staff member, a two-year-old, and the child's father, focused on what the child did in the centre that day:

Staff: *Look whose daddy is here!*
Chn: *Monika's.*
Monika: *Daddy.*
Staff: *Monika, show your daddy what you did today.*
Monika: *Dadda, dadda, dadda (pointing to fingerpainting print on drying rack).*
Father: *Oh, that's wonderful!*
Monika: *(Nodding.)*
Staff: *And what new song did we sing today Monika?*
Monika: *(Raises hands above head and moves fingers in rapid flashing motion) Star, star!*
Staff: *Yes, 'Twinkle, twinkle little star.'*
Father: *You sang 'Twinkle twinkle little star', did you?*
Monika: *(Nodding.)*
Continues....

In the example above, the child, with assistance from the staff member, is able to communicate to the family what she has done during the day. This facilitates the sharing of common knowledge between the centre and the home. In this way the family is able to be a part of what the child has been doing at the centre. Later, at home, any attempt on the part of the child to discuss what she has been doing can easily be interpreted by the father. The interaction above forms a natural part of many children's lives at home as one parent encourages the child to share with the other parent or grandparent experiences they have had in the absence of that adult. This form of interaction encourages young children to express in a sequential way their experiences. When it involves staff in a centre, it demonstrates the staff member's interest in the child and the child's achievements — that is, genuine and not display questions.

Yet this interaction is focused only on what took place in the centre. For staff to interact even more effectively with the children in their care, they need access to the child's experiences from home, particularly in the case of toddlers. This is also very important for children from a non-English speaking background. It provides not only cultural knowledge and an understanding of values, but also opportunities in which the home language can be shared with staff. Similarly, cultural sensitivity is required in establishing the boundary-crossing opportunities in ways which are appropriate, meaningful, and accessible to the family. Boundary-crossing opportunities can take many forms; for example, the opportunity can occur formally through a special notice board or book on which parents can write 'Special things I can say. Special things I can do. Special things I did with my family.' Active facilitation of this can also occur on a one-to-one basis such as that shown above with Monika, her father, and the staff member. Below is an example of how the staff member can initiate a conversation with Monika and the father when he arrives to take her home.

Staff: *Monika has been saying 'back' to describe things in the centre, such as putting back the hand towel. What other special words does she use at home?*

Father: *She says 'duck'.*

Staff: *Monika, do you have a duck at home?*

Monika: *Uck!*

Staff: *You do have a duck. Is it in your bath?*

Monika: *(Shakes head to indicate 'no'.)*

Father: *We have ducks on our dam, don't we?*

Monika: *Wet aumm!*

Father: *Yes, on the water.*

Staff: *The water is wet. Do your ducks swim on the water in your dam?*

Monika: *Aumm!*

Staff: *On the dam. What other animals do you have on your little farm?*

Monika: *Moo!*

Staff: *You have cows?*

Monika: *(Nods.)*

Staff continues inquiring about animals and processes for feeding.

Some children may have limited experience with recalling and re-telling their experiences. (Here cultural differences, and hence sensitivity, should also be considered.) Staff can work together with these children to facilitate this type of sharing. For example, staff can encourage children to tell another staff member about something special they have done in the centre. This is particularly appropriate when, for example, afternoon rostered staff

Staff initiate and maintain communication with children, and their communication conveys respect

arrive. The adult who had the shared experience with the child can support the child as she or he attempts to do this. For example:

Staff: *Rowan, tell Angela what you did today.*

Rowan: *Bike (pointing to outdoor area).*

Angela: *Bike? What did you do?*

Staff: *Tell Angela what you were able to do with your feet.*

Rowan: *(Smiling and then pointing to feet.) Foot (Mimes with hands a peddling action).*

Angela: *Did you pedal the bike, Rowan?*

Rowan: *Yes (smiling).*

Angela: *Which bike did you pedal?*

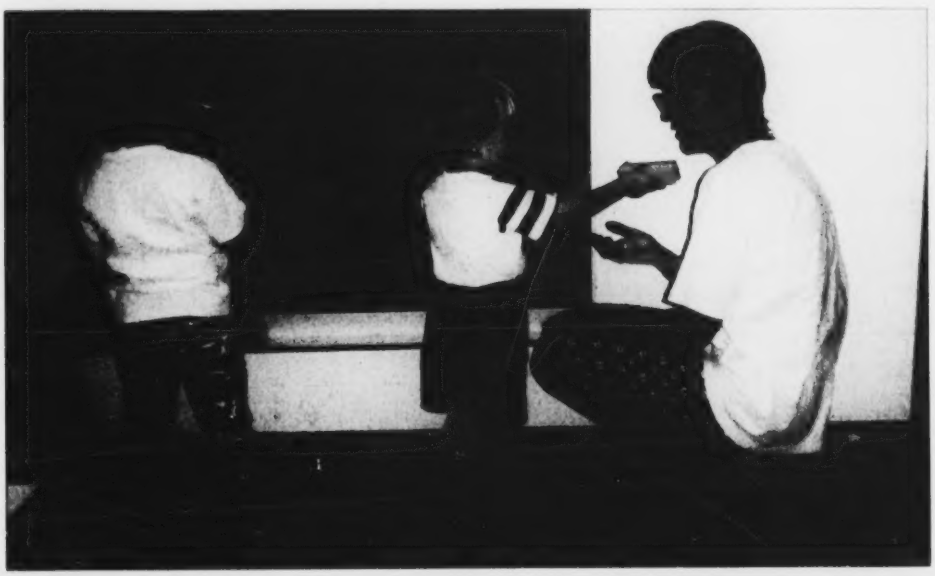
Rowan: *Blue.*

Angela: *You were able to peddle the blue bike! What a clever person! You will have to show me when we go outside.*

Rowan: *(Nods.)*

The establishment of common knowledge can be facilitated through working together with families. Through staff actively seeking information from parents as a basis for interactions, as shown above — and actively demonstrating genuine insight into what interests children — staff can utilise this information, not just for interpreting what children are saying, or for facilitating language development, but also for making the child feel important and special.

Staff are responsive to children's feelings and needs



Listening to children

Tizard & Hughes (1984) have found that children at home with a parent or carer are likely to initiate, on average, 27 conversations an hour. Their research has shown that parents tend to interact with their children by listening and responding to their initiations, rather than by talking to or questioning the children, as is common in the nursery schools (preschool for 3-year-olds) studied. In fact, the research indicated that most staff in centres spend more time talking to rather than listening to children. This being the reality, staff need to increase the time they spend listening. Listening is a very important part of interaction and cannot be underestimated.

Although the ratio of adults to children in a centre is significantly different from that in the home, the time spent on talking and questioning needs to be balanced with the time spent on listening to children. Otherwise, staff will never be in a position to develop a real understanding of each child, and hence to be able to respond appropriately to their needs. In order to show genuine interest in each child, respond to each child in the desired manner, and allow them personal space, an adult needs to listen and respond, and to analyse his or her interactions with each child. There are many ways staff can work towards this challenging outcome. For example, the stories below outline the experience of three adults working within a centre, who actively tried to develop different aspects of their interactional style (listening, positive interactions, and developing warm and caring response to infants).

> *Carol: I work with three- to five-year-olds. I wanted to find out how much of my day was spent talking to children and how much of my day was spend spent listening. I put a radio mike around my neck and I recorded myself at different parts of the day — meal times, 30 minutes during outside time, and the same again during inside time. I found out a great deal about what I do this way.*

Carol listened to the recordings that evening. She used a stopwatch to record how much time she spent talking and how much time children actually spoke to her. This was a crude but effective measure of analysing her own speaking and listening times. Although she was conscious during the day that she was recording herself, when she played back the dialogue, she was amazed at how little listening she had done. As a result, she decided to actively plan for listening space within her program. She developed a listening chart — 'Special things children have told me!'. She also decided to sit for periods during the day on a bean bag, where her interactions would focus on listening, cuddling, and looking and smiling at children — as a way of encouraging children to talk to her. Where appropriate, she would repeat what the child had said, in an attempt to encourage the child to talk further. At other times she would comment in a manner in which understanding was implicit.

Carol: The other thing that amazed me was my wait time. I thought that when I spoke to children, I gave them plenty of time to respond to me — that the wait time was at least 10 seconds. However, I found that it was barely two seconds. In many instances I was talking over the top of children as they were attempting to respond to me. When I talked to other people who were recording their interactions, they too found that they were doing this. This exercise has taught me that what you think you are doing and what you actually do may be two different things!

Carol's response is not uncommon. Many adults who record and analyse centre-based talk have found that what they do and what they think they do are often two different things. The staff development activity that Carol engaged in is not only a helpful self-analysis tool but can also be useful for reaffirming where interactions between staff and children are of a high quality.

As a follow-up to this staff development activity, Carol replayed her tapes of interactions with children and analysed them for:

- display questions; and
- genuine questions.

She wanted to know whether or not she was showing genuine interest in her children. She asked herself 'Am I just asking display questions to get them talking, or do I really seek information from the children?'. Similarly, she questioned herself about how much she encouraged children to offer their opinions (opinion-seeking questions) and how often she responded in a way which clarified why something was evaluated either positively or negatively (Makin, 1995:6).

As a result of this experience, she decided to do regular spot checks on her interaction throughout the year. Progressively she challenged herself further in terms of analysing the quality of her

interaction and monitoring for signs of improvement. For example, at a later stage she looked at what type of questions she was asking children. In particular she focused on whether she commanded children:

- **to do;**
- **to be;**
- **to act;**
- **to attend; and**
- **to cognise.**

In addition she looked to see how much room there was in her interactions for negotiations. Were the commands absolute or could the children negotiate with her?

Finally, she looked at how often her interactions related to the immediate context versus the frequency of her comments relating to a broader perspective. For example, how often did Carol say things like: 'Yes, you have jam on your sandwich. What type is it?' as opposed to 'Yes, you have jam on your sandwich. You can have jam on pancakes or between cake layers. Can you think of any other ways we use jam?' (and later) 'What do you know about how jam is made?'.

Carol's commitment to assessing, monitoring, and developing her interactions with children demonstrates the ongoing nature of staff development for quality interactions.

Positive modelling

The recording of centre-based talk is also useful for other types of self-analyses. Durio, an experienced child care worker, was interested in promoting and maintaining self-esteem through positive guidance and discipline.

Durio: I have worked in childcare for many years. I wanted to analyse my interactions to see how much of my interactions were phrased in the positive — rather than the negative. When Carol outlined to me how useful taping her interactions had been I decided that I would have a go, too. Because I work with the toddlers I thought it would be a good idea to monitor my interactions during part of inside and outside time.

Durio used a different technique from Carol's for analysing his interactions. He made a tally of all of the positive statements and a tally of all of the negative statements. He also took note of which statements tended to be phrased in the negative and thought about a number of alternative phrases that were positive and much more helpful for the toddlers in his care.

Durio: I know it is important to be positive when working with children. However, it is surprising how this basic interactional technique can be forgotten in the rush to organise children in and around meals, bathroom time and nappy changing. But I was pleasantly surprised to find that I had generally been positive. I made a list of some of the common positive responses to some of the children's actions.

Staff use a positive approach in guidance and discipline

Child's action	Durio's response
Running inside	Remember we walk inside.
Snatching toys	Ask (child's name), if you would like that toy.
Pushing other child	That will hurt (child's name). Be kind and gentle.
Hoarding toys	We share all the toys.
Pushing self onto a bike already in use	Ask (child's name) if you may have a turn.
Child screams inside	That is an outside sound. Use your soft voice inside.

Being positive, warm, caring, and gentle to children displays the behaviour that staff values. It provides a positive and informative environment for children. Toddlers hear what is expected of them; they do not have to guess. They also find out where and when certain behaviour, such as using loud voices, is acceptable. Rather than children having to work this out through negative associations, the staff's positive and informative interactional style helps children develop and maintain their self-esteem. With older children, staff will find that the children will not only repeat these basic statements (e.g. 'walk inside'), but will inform other children in the same positive style.

This warm and positive interactional style is more than words. Like most other forms of communication, it is also a whole body response. It is important for staff to examine their own behaviour as in relation to the statements they are making. For example, if an adult snatches toys away from children in an attempt to avoid child-child conflict, this renders the injunction 'Ask (child's name), if you would like that toy' meaningless to children. Research has shown that visual communication is much more powerful than oral communication. For example, if you say you would like two spoons of sugar in your tea, but at the same time you indicate one (one finger raised), you will find that you will receive only one spoon of sugar in your tea.

Durio: I also analysed my own behaviour at these and other times to ensure that I too had not snatched toys or called out to children across the room, but had made kind and warm physical responses to children. I had to model to the children the behaviour I valued.

Durio had learned a great deal about his own physical as well as verbal interactional patterns. He was now in a good position to recognise and maintain the positive interactional pattern he had established with the children.

Warm and friendly interactions

Kath, who worked in the same centre as Durio and Carol, had witnessed the challenging, yet positive, self-analysis staff development activity of her colleagues. She was keen to see how she interacted with her infants, and decided to video-tape how she responded to each baby. Although she did not have a camera, she found it was not too hard to locate one. After putting a notice in the centre's newsletter, outlining what she wanted to do, she was flooded with responses from parents offering use of their personal video cameras.

Kath: I felt that what was important for infants was an holistic approach to interaction. It was not just what I was saying that was important, particularly with infants whose language skills are just emerging, but how I positioned my body:

- Did I make regular eye contact?
- Did I look towards what the infant was looking at?
- Did I regularly hold, cuddle, and speak warmly to the infants?
- I had quite a few questions in mind when I video-taped myself in action with the babies.

Staff interactions with children are warm and friendly. Quality interaction between children and adults cannot only be heard, but it can be felt

Although all children require warm and friendly interaction, infants need to feel this through body contact. Kath examined how often she was seated alone when communicating with infants, compared with how often she was making physical contact with them — either directly, through an infant sitting on her lap, or through cuddles or stroking. Similarly, Kath looked closely at how she positioned her body. She was pleased to find that she spent most of her time on the floor with the infants, making as much physical contact as possible.

Kath's careful body positioning also ensured that she was able to make regular eye contact with her infants, and especially follow their eye movements to see what they were looking at. This latter aspect is a very important part of infant interaction. Adults who are aware of an infant's intentions can actively support their needs through helping them reach out for an object, talk about the object to facilitate language development, or encourage an infant to crawl towards it (depending upon the developmental level and needs of the infant). Kath was mindful that she needed to respond to children from different cultural groups in a culturally sensitive way. For example, she did not persist in attempting to make eye contact with an Aboriginal girl in her group who had recently arrived from a traditionally-oriented community in central Australia. She also found that the reciprocity of

cuddling was variable across cultures. For example, a Japanese infant in her group responded most positively to regular physical contact.

A responsive adult demonstrates more than interest in the infant; he or she also facilitates development and learning. Infants will feel safe in a warm and supportive environment and are more likely to actively explore objects and initiative interactions with adults. Staff who are genuinely interested in young children and respect them will bring to their interactions a quality which cannot be easily measured in terms of 'technical correctness'. However, particularly with older children, staff can be alerted to the quality of their interactions through mapping the frequency of display versus genuine questions.

Children as individuals

High quality interaction between staff and individuals can best be exemplified through a philosophy in which each child is treated as a unique individual — through staff showing a sensitivity towards individual children, where their special interests and temperament are considered, quality interaction can be fostered, particularly with infants. This child-centred philosophy has, and continues to be, the hallmark of good early childhood practice.

In theory this approach should be a useful framework for 'a liberating education which does not straitjacket children into sex role stereotypes' (Clark, 1989:14). However, a great deal of recent research has shown that a child-centred philosophy can also be used to 'prop up and obscure the practices which promote highly gendered attitudes, behaviour and work' (Browne and France, 1986; Davies, 1989; Clark, 1989:14, Walkerdine and Lucey, 1989). For example, instead of considering that there may be endless varieties of individuals, there is still a subconscious association of the individual with a particular gender. Rather than thinking (and saying) 'boys will be boys', a childcare worker may say 'Sam will be Sam', thus legitimising that Sam may display more aggressive, vocal, and active behaviour.

Inaction on the part of the childcare worker is just as powerful in shaping children's behaviour as is the vocalisation and implementation of particular gender-inclusive policies. By allowing Sam to play in an aggressive manner (under the belief that this is a part of his individual behaviour pattern), this behaviour continues — often at the expense of other

Staff treat all children equally and try to accommodate their individual needs: they treat both sexes without bias

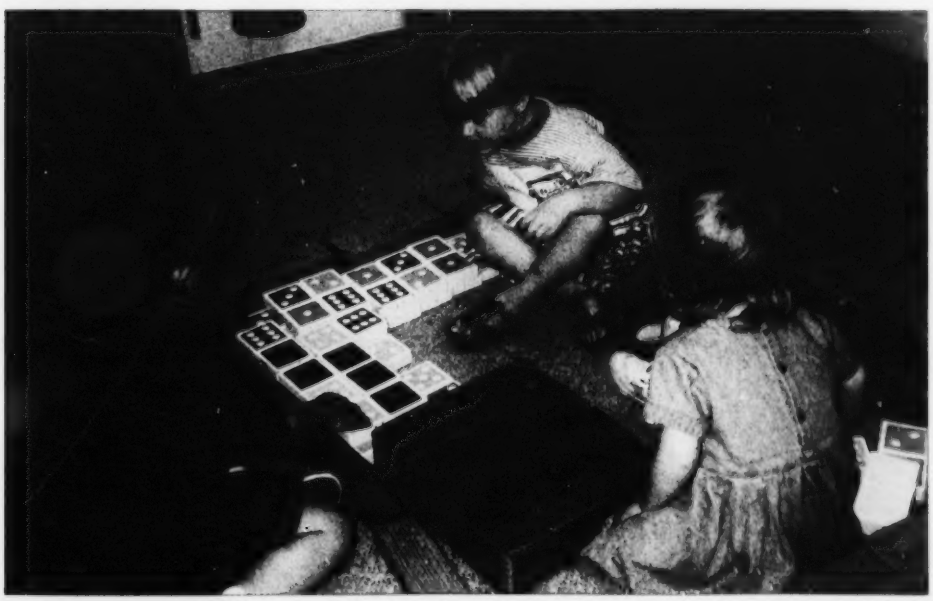
children who would otherwise use (and feel safe in using) the play areas monopolised by Sam. There is a great deal of evidence that even slightly aggressive action (verbal or physical) on the part of one child will exclude others, particularly girls. Unfortunately, research has shown that often this behaviour is not noticed or not considered unusual; hence it is allowed to continue (Browne and France, 1986; Davies, 1989; Clark, 1989:14, Walkerdine and Lucey, 1989).

Similarly, a belief that certain behaviours are 'natural', such as 'Anna is naturally quiet; it is part of her personality', only reinforces the expectation that Anna should not be involved or should not express her views.

Although a child-centred philosophy may be claimed by centres, great care needs to be taken to ensure that the adult's expectations and hence actions (or inaction) do not follow gendered patterns of what society has come to expect as 'natural' behaviour for boys and for girls, thus constituting masculinity and femininity. We do not want individuality to be tied to predetermined gendered traits, thus limiting opportunities for both girls and boys.

Clare, a recently graduated childcare worker, wanted to examine how effective her gender-inclusive policy was in her family grouping of 2–5- year-olds.

Clare: I had put a great deal of effort into compensating for any existing inequalities between the boys and the girls. I had adapted all my songs and rhymes to show balance, for example 'Mr Polly has a dolly'. I had even introduced counter-sexist stories such as 'Prince Cinders' and 'Ms Smarty Pants'. I had also monitored the interaction occurring



in the room, where I would encourage the girls into the block corner and the boys in the home corner. Finally, I was ensuring that I was reinforcing behaviour I valued, and not the child's gender, by saying 'Well done, Michelle; you are very clever to be able to do that!' rather than 'Good girl', or 'Alex, you are being very caring towards the animals' in preference to 'Good boy'. However, I was not really sure about how much success I was having!

Clearly, Clare is putting a great deal of thought and effort into creating an atmosphere in which her children are being treated without bias. However, the kinds of gender equity initiatives outlined by Clare, while very important, are based upon an assumption that the main cause of the problem is the socialisation process or the barrage of sexist messages received by the children from the outside world. The solution is more complex than simply changing the messages to fix the problem!

Creating opportunities for girls as a way of equalising sexist messages and encounters can lead to a notion of blaming the victim. For example, when Clare examined where her children were predominantly playing, she found that the boys were using the construction kits and vehicles and the girls were located in the home corner. Clare's response was one of frustration: 'I give the girls all these opportunities and still they don't take them — they don't play with the construction kits.'

The outcomes of many gender equity programs in centres are like that of Clare's. 'Instead of focusing on the processes and structures that oppress or constrain girls, they focus on the girls and their supposed inadequacies' (Clark, 1989:87). It is not the girls or the boys which are the problem, but society's definitions for femininity and masculinity. The expectation of what boys and what girls should do and be, set up the boundaries and restrict both gender's behaviours and opportunities.

Often the 'fix up the victim (girl or boy)' perspective means that girls are expected to be more like boys — do more things that boys do and exhibit boy-oriented behaviour.

There is also a belief that sexism is caused by individual sexist people — people who are unaware — and that, by enlightening them, sexist bias will be removed. However, research by Clark (1989) has shown that, even amongst the best-intentioned of people who work with children, there are some who 'unwittingly contribute to a narrow construction of femininity and masculinity through the daily practices that could make a difference' (p.90).

You know, I work so hard at this non-sexism thing. I think of it in everything — you know, how I teach, what I teach, what I say — but I regularly catch myself out, doing the most awful thing like calling a little girl 'sweetie'.

— Female early childhood teacher (Clark, 1989:90).

It is not only the interactions between staff and children that need to be considered; the interactions amongst children themselves need careful analysis. Clare video-taped five-minute intervals of individual children interacting in different parts of the centre. She found, when viewing it later in private and then again on a subsequent day with the children, that she gained a great deal of understanding about her own and the children's

interactions in terms of gender construction.

Clare: The first thing I noticed when I viewed the video tape was that the choices I had created for children in the centre were not choices at all. It became clear to me that children's abilities, interests, personalities, and behaviours were not totally as a result of an individual's blueprint which was unfolding (Clark, 1989:17). But rather I could see gendered and class-differentiated histories occurring in the centre as I watched the children interacting.

Clare found enormous differences in the amount of space being used by boys and girls. For example, the boys' block play involved constructing roads and crashing vehicles as they sprawled over the entire space available for block use — even invading other areas such as the book corner. Any attempt by the girls to use the block area was discouraged, simply by the unavailability of space. Persistence by any newcomer, or by someone who had been previously constructing and who did not wish to engage in the road and vehicle game, was soon frustrated — vehicles at high speed can easily overturn the most elaborate building within seconds.

Similarly, the amount of sandpit space available for girls, as well as space in other outdoor areas, was also less than that for boys. The type of play and the expectation by the boys that they could monopolise large areas in the centre had created this situation. The disproportionate use of space is common in many centres and, as a result, it becomes invisible — it has come to be viewed as the norm. When girls do use more of the outdoor space, the play is controlled by the boys; the boys will chase the girls (as Batman, Power Ranger, etc.)

Clare found that, when girls used the sand patch, there was a particular code of practice which was acceptable; they could not get dirty, and baking or cooking games were favoured in the small amounts of space available. Research by MacNaughton (in press) has shown that gendered interactions occur in many areas of a centre, including the sand patch. Girls who get dirty, for example, may be excluded by other girls from further play in areas other than the sand patch — since they do not conform to what is expected. This is not just a difficulty with girls. Boys face the same exclusion if they, too, do not conform to what is expected of boys. Research has shown that, in isolation, boys cross gender-defined boundaries; they play dress-ups, display gentle behaviour, and monopolise the dolls, craft area and books (Clark, 1989). Similarly, girls given the space and opportunity make use of resources such as the construction kits, sand patch, and the whole outdoor play space.

Although intervention practices have not been fully researched in child care centres, there is some evidence for the success of gender equity programs in schools. Research has shown positive effects for the planning of gender boundary-crossing opportunities in the outdoor area in schools. In many schools unsupervised play (or limited supervision) at lunchtime and recess cause great anxiety for some children — children who do not feel safe or who are victimised because they cross the gender boundary. Through designating particular spaces in the outdoor area for a particular gender group — for example, the oval is for girls-only on Mondays, and for boys-only on Fridays — opportunities are created for different types of play in these public

spaces. Although activities in centres are never unsupervised, there are times when children are grouped or sparsely supervised. At these times it may be a useful strategy to group children of a similar temperament and gender. Similarly, less assertive children should be given opportunities in which they can take an active role while assertive children take a more passive role. For example, assertive children can be given the role of being members of the audience, while the less assertive child can be the leader in the game, song, or activity. A list can sometimes be a fair way of ensuring that more assertive children do not monopolise all the opportunities at group time or when special things are occurring in the centre.

Patterns of behaviour limit space and choices

Clearly, accepted gendered patterns of behaviour for boys and girls limit the space and choices available to them as they move about the resources available in centres. Clare found, through her analysis of the interactions in her centre, that using non-sexist language and resources only focused on the products. She had to look at the processes that were occurring in her centre and the gendered 'baggage' that children were bringing with them into the centre — particularly in terms of their behaviour and expectations. Similarly, she had to re-appraise her own expectations. She had to consider ways in which both boys and girls could be positioned in the centre so that opportunities could be created for them to cross the masculinity or femininity boundaries, in order that they, too, would not be constrained at such a very young age and could explore different resources and different ways of playing.

Clare decided that she needed to equip her children with ways in which they could deal with the effects of gender on their lives. The provision of non-sexist role models and counter-sexist materials in her program on its own would not provide the opportunity for children to 'recognise the impact of assumptions about appropriate masculinity and femininity on their lives, their relationships and their aspirations' (Clark, 1989:94). For example, Clare decided to use some of the classical stories, such as *Peter Rabbit*, in her program as a way of highlighting sexism and empowering children. She read one of the Peter Rabbit stories and then talked to the children about how Flopsie, Mopsie, and Cottontail would also have liked to go down to Mr Macgregor's garden, and that someone should have told the author about this, because clearly she did not know (Lambert, 1994).

The children then talked about what adventures they may have had there — inventing their own story. In addition, Clare used the video segments she had filmed, as an stimulus for talking about what was occurring in the centre. After the children had an opportunity to view themselves and their peers on the video, Clare showed one five-minute segment commenting upon how the spaces in the centre were being used. She facilitated a discussion with the older children about how they could change the environment, the play and their interactions so that everyone had more opportunities — so that it was fair to everyone.

Clare followed up these discussions with books and video tapes of children playing

in different ways and using the spaces more fairly. She tried to position the less assertive children so that they, too, could control the play, and talked about ways in which they could enter and control the play situations. Similarly, she facilitated a discussion on rules which would stop the harassment of individuals in the outdoor area. As a group they decided that no-one could wear a Batman (or similar) costume to the centre. All TV shows which involved the chasing of individuals were banned, as was aggressive play such as Power Rangers. This repositioning of children to give them power and useful strategies for dealing with the effect of gender on their lives was not something that Clare could do overnight. This was a project that she worked on all year. After all she was in a better position than most; she would have her children for at least three years!

Clare also analysed her program in terms of where she positioned herself in the room. This was important, as it gave messages to children about what she most valued. She found that she spent very little time in the block or construction mat areas. To rectify this, she stationed herself in these areas regularly, showing a range of different ways the materials could be used. She found this significantly changed the play and was more inclusive of the girls, particularly in terms of the amount of space available to them.

Finally, Clare decided to examine her group time. This was a brave thing to do. She asked one of her co-workers to take notes on how she interacted with particular children, recording the type of response and how long she was giving each child to contribute.

Clare: When I talked to my co-worker after group time, we discussed my interactions. The first thing that became obvious was that I had allowed the children to seat themselves in such a way that I had difficulty in diverting more assertive children's responses. Whilst I wanted each child to feel they could contribute, I found that only five did so on a regular basis. Four of the five were boys. I also found that, in order to maintain the whole groups attention, I had to defer to those who did not concentrate as well — once again they were the boys. What really horrified me most was the way in which I had allowed the dominant children to take control and direct most of the discussions. On the occasions that the quieter children did contribute, I had allowed the more assertive children to talk over the top of them. All in all, I could see that a minority of children were gaining significantly from the group time interactions, but many were never given such opportunities!

Clare had gained a great deal of knowledge about the gendering process through the staff development activity discussed above. Although it was a risky thing to do, she had supportive colleagues who could talk through the challenges she was facing. By involving her children in the discussions and solutions, she could see small but meaningful changes occurring. Children were beginning to really have a choice at free choice time!

Staff interact with children to stimulate curiosity and thinking

In recent years some researchers and theorists have begun to analyse, and hence describe, adult–child interaction likely to stimulate curiosity and thinking. Until then, interactional patterns either tended to be considered as either all the same, or were assumed to be quality interaction, without detailing what this looked like in practice. As a result, little guidance on interaction to stimulate discussions and thinking for children had been available to those working with young children.

Great variability exists in interactional patterns between adults and children. Research has shown that some adults spend most of their time interacting with children in ways which facilitate the management of resources and children, but do not stimulate curiosity or promote thinking (Fleer, 1992; David, 1990). As a result, many learning opportunities are lost. More recently, theorists have focused their writings on interaction and started to detail differences in adult–child interactional patterns. This research is useful for identifying quality interaction.

A brief but inclusive discussion of the work of Lev Vygotsky and the recent writings of Jerome Bruner (Light *et al.*, 1991; Newman and Holzman, 1993; Richards, and Light, 1986) on socially constructed learning is included in this section, since it is empowering for staff to not only have access to the practical implications of this work but also to understand the theoretical assumptions upon which it is based. In this way, staff can incorporate those aspects which seem relevant to their interactional needs and suit their individual philosophy.

Socially constructed learning

Until recently, a great deal of the literature available to staff working with young children has tended to be supportive (explicitly and implicitly) of a theoretical position which views learning as 'subordinate to development' (Piaget, 1967 cited in Light *et al.* 1991: 22) and undervalues the adult's role in staff–child interactions. For example, Light *et al.* (1991) in their appraisal of the dominant theoretical basis of a child-centred philosophy stated that:

> *...Piaget really did not consider that much could be gained from purely verbal conversation, since he held that language merely reflects cognitive achievement rather than controls it. Again this can be seen as minimalizing the teacher's role (Light et al., 1991: 22).*

The implications of this perspective in terms of adult–child interactional patterns is tremendous. The net effect in early childhood education and care has been a highly resourced environment in which children are encouraged to explore, but

with less emphasis being placed upon adult–child interaction.

More recent publications (National Child Care Accreditation Council, 1994) have acknowledged the importance of staff–child interactions, particularly in relation to stimulating children's curiosity and promoting their thinking (see Principle 1).

Although a richly resourced environment which promotes active exploration by children is still important, a great deal of research has shown that this on its own, without quality adult–child interactions, does not lead to the development of children's full potential.

Children are competent thinkers

The evidence which Donaldson reviews shows that young children are remarkably competent thinkers when that thinking takes place in an 'embedded' context — one which makes 'human sense'. Children's difficulties arise when they are required to solve problems in 'dis-embedded' contexts which lack the everyday human sense on which their thinking relies (Light *et al.* 1991:23).

The 'embedded context' is created both physically through the selection of appropriate resources to stimulate curiosity, and verbally through the child having a sense of 'purpose' in participating in the activity. It is the latter aspect that is particularly important for developing children's thinking. Adult–child interactions are crucial for this; they contextualise, assist with the interpretation and extend children's thinking. Language provides both the process and the product of these cognitively focused interactions. It is in this sense that we can say that learning is a social process. This theoretical perspective has been termed *socially constructed learning*.

Vygotsky illustrated socially constructed learning in his writings through detailing how an infant comes to understand the pointing gesture so prevalent in many cultures as an important form of communication. He stated that infants will make many spontaneous arm movements, some of which may or may not be directed towards objects. He argued that such spontaneous arm movements are interpreted (in many cultures) as pointing towards a desired toy — indicating that the

child wants the toy. A parent will actively move the infant towards the object (if the adult is in a standing position, holding the infant) or move the object towards the infant (if the infant is lying on a rug on the floor). Over time the infant makes the association between the action (arm movement in a certain direction) with the social activity (gaining the toy). Consequently the infant understands and uses the pointing gesture as a way of communicating.

Vygotsky argued that this learning of the pointing gesture illustrates not only how children are socialised into their culture, but demonstrates that learning is a social process — children learn the conventions or customs of their culture through their family. What is significant here is the importance of adult–child interaction in mediating the social mores in ways which are appropriate for the child.

The implications for staff in early childhood centres is that it highlights the importance of the adult in helping children come to understand not just their environment but the social mores of their culture. This understanding is mediated through adult–child interaction. This theoretical perspective (socially constructed learning) views quality interaction as the key to promoting curiosity and facilitating thinking and learning. Learning is considered a social process when it is facilitated through staff–child interaction in ways which are culturally appropriate and meaningful for the child.

However, Vygotsky also argued that children participate in social activities without necessarily understanding what they mean. A further example is that of a toddler participating in hand-washing after visiting the toilet or before eating. This ritual is practiced by the child's family and hence is part of the accepted behaviour patterns known to the child. However, the child may not necessarily fully understand what this action means. Vygotsky termed this social behaviour as occurring at an *interpsychological* level of functioning — at a social level of activity without understanding. It is when the child understands why she/he is washing her/his hands that the child is said to be operating at an *intrapsychological* level of functioning. Learning occurs when the child moves from one level of psychological level of functioning to another.

The implications for staff in early childhood centres can easily be seen through the interactions of staff and children. Staff — in their day-to-day management of hand-washing, toileting, preparation for eating and sleeping, and also through spontaneous learning opportunities, such as when a butterfly flies into the outdoor area — help children develop their thinking from that of social behaviours without understanding (interpsychological level of functioning) to a higher level of understanding (intrapsychological). Although the staff–child ratio is such that one-to-one contact is less than that of in the home, staff need to capitalise upon all one-to-one opportunities as they arise. Day-to-day activities of wiping tables and changing nappies should be accompanied with high-quality adult–child conversations. For example, staff can easily initiate discussions on how sponges absorb liquids (some better than others), or explain to a toddler what is happening when she/he squeezes the sponge.

Similarly, nappy-changing times can not only become excellent opportunities in which to sing together with a toddler, but also times in which staff member and child can talk about different body parts (e.g. 'Where is your nose?', 'Where is my nose?', 'Can you find your elbow?', or singing: 'Put your finger on your ear, on your ear...').

One-to-one experiences motivate participation

Although these one-to-one experiences may seem to be rather pedestrian, very young children are not only highly motivated to participate in the things adults do, but are keen to make sense of the everyday activities by which they are surrounded. If we believe that learning is a social process, then quality interaction between children and staff needs to occur during the preparation of and execution of everyday tasks and routines.

Vygotsky's theory of socially constructed learning is also useful for considering the complexities of the interactions. Theories such as that put foward by Piaget suggested that, when interacting with very young children, we should match activities and conversations to the level the child is at. However, Vygotsky argued that, if we observe natural interactions in families, we would note that children do participate in activities and conversations well beyond their present level, but these children are actively supported by the adult as they participate in either the conversation or the activity.

Vygotsky argued that the difference between these two perspectives (at their level or beyond it) can be easily seen when Western testing conditions are considered. For example, a child will be asked to perform a task (written, oral, or physical),

usually in isolation from peers and adults, within a given time. Vygotsky argued that all that was being measured was what that child could presently do. It does not measure the child's potential or how best to facilitate that child's development. It is a static measure of a particular child's ability. Vygotsky's research indicated that, if the child were given tasks to perform in collaboration with an adult (where the adult's prompting were analysed), a better understanding of the child's ability, potential, and needs could be obtained.

The implications of this perspective are profound for staff in early childhood centres. Consider how often developmental records are made of young children in isolation. Many staff set up specific experiences or make requests of individual children (for example, 'Can you hop on one leg?'), and then record the results. Many staff make observations of children with minimal interaction, other than asking questions 'What colour is this?', while others state apologetically that they make their observations 'on the run'. Yet it is the latter approach which is probably the most meaningful and helpful for recording what children know and can do and what they need to further develop their knowledge and skills. It is the latter that is done in context — a context that the child is already involved in, one in which they are interacting with other children, and one they are not being taken away from in order to participate in some form of a 'test'. Because the observational setting is natural, the adult is more likely to be interacting and prompting in the manner outlined by Vygotsky.

Staff–child interaction important in recording development

Clearly then, staff–child interaction is an important element of recording children's development. It is this interaction which mediates the context in which the child is involved. Since there are many children interacting within a single context, there will be a range of skills and hence support needed by the adult. The context cannot be matched exactly to one child — but rather to a range of individuals. This provides opportunities in which adults can record the number and types of prompts needed (verbal and physical).

This information is more important than recording what a child can do, since it gives some indication of what types of experiences or supports are needed to develop the child further. As a result, it provides some insight into the types of staff–child interactions necessary for further development.

These interactions are often within the context of activities which are beyond children's present level, but with appropriate adult support to facilitate learning. Vygotsky termed this aspect of a child's potential the zone of proximal development (ZPD). It is the child's potential rather than the actual developmental level that is being considered. Vygotsky argued that, in order to stimulate curiosity and develop children's thinking, adults need to interact with children at their potential level of development and not their actual level of development – their ZPD. Children with the support of an adult work at levels above

their actual developmental level. Consequently, if staff in child care centres subscribe to this theoretical perspective, then it is vital that they actively plan for interactional patterns which will support children as they work together on tasks beyond the child's present ability. Failing to do this would only lead to frustration for the child or only facilitate development to the level of the most capable peer within the group — who may or may not provide support for less capable children.

Scaffolding

Socially constructed learning has, in recent years, been detailed further in the writings of Jerome Bruner. In particular, Bruner has researched the educational implications of social interaction. His research, while focused predominantly upon language development, has made a significant contribution towards describing how interaction changes over time as an individual's development and learning progresses. Of significance has been his work in the area of scaffolding. This metaphorical term is used to describe the support offered by adults to children as they interact. In the following diagram, the scaffolding process is symbolised. This simplistic model demonstrates how the adult and the child work together on tasks beyond the child's ability (ZPD). Initially the adult does a great deal of modelling — within an appropriate context. This is followed by the child and the adult working together on the task. Finally, the adult hands over responsibility for the task to the child; the adult does less and less as the child does more and more. It is in the latter stage that the child performs the task in isolation. Learning has taken place. Scaffolding is used to describe quality interaction over time between an adult and a child.

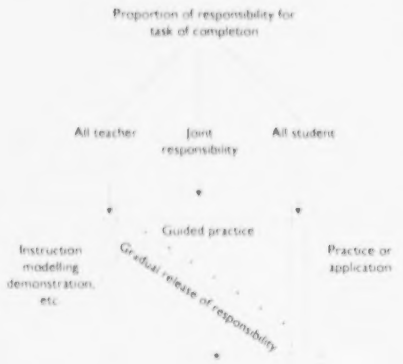


Figure One: A model of the scaffolding process (J. Campione, in Pearson and Gallagher, 1983 cited in Cazden, 1988 p.104).

Scaffolding is also a useful term for describing quality interaction between staff and children in child care centres. It is helpful in planning interaction, since it identifies over time different ways staff can interact with children. For example, scaffolding can be illustrated through the planned interactions of staff with children during jigsaw puzzle construction sessions.

The first time an infant is shown a jigsaw puzzle, the adult introduces the child to the social activity of the puzzle's construction (as opposed to the infant merely pulling the pieces out and mouthing them). Rowan, a nine-month-old infant, is introduced to this activity by a home carer (a selection of jigsaws has been made available in the home environment for all the children being cared for).

Infant at 9 months

Staff: *(Six-piece jigsaw puzzle. Each piece is a farm animal. A nob for lifting each puzzle piece is in the centre of each animal.) You haven't seen a jigsaw puzzle before. Have a look at the pictures. Here is a rabbit (points to rabbit).*

Rowan: *(Eyes follow adult's finger.)*

Staff: *Here is a lamb (points to lamb). Ba!*

Rowan: *(Eyes follow adult's finger.)*

Staff: *Over here is a farmer (points to farmer briefly), and here is a chicken (points to chicken). Cluck, cluck cluck.*

Rowan: *(Eyes follow adult's finger.)*

Staff: *Now what we have to do is take all of the pieces out (takes each puzzle animal out with nob).*

Rowan: *(Eyes follow adult's finger, looks at adult and back to pieces.)*

Staff: *There now; what we have to do is put them back in again.*

Rowan: *(Reaches out and takes a puzzle piece and puts it into mouth.)*

Staff: *We don't eat the puzzles; we put them back (takes puzzle piece from infant and places it in the puzzle board).*

Rowan: *(Picks up another puzzle piece from the board and pushes it around the board.)*

Staff: *That's right; we take the pieces out and then we put them back in again.*

In the example above, the staff member introduces the child to jigsaw puzzles. Without an adult or capable peer, this infant would not know what to do with the jigsaw. The infant, at this early stage, is still working towards understanding the social activity of jigsaw puzzle construction. Over time, with repeated sessions such as the above, the infant will understand this cultural practice.

Bruner suggested that, in quality interactions, initially the adult performs more of the task — as can be seen above with Rowan and his carer. However, over time the child takes more responsibility for task completion, until eventually the child is able to do the task independently.

This hand-over of skill occurs slowly over time. The adult takes a leading role in working together with the child, gradually allowing the child to perform more of the task as she/he is able. This scaffolding process can be seen as Rowan and his carer actively work at solving jigsaws together at 9 months (above), 12 months, and 15 months (below).

Infant at 12 months

Staff: *Here is our jigsaw puzzle (Farm animal puzzle — as above). What do we have to do with this, Rowan?*

Rowan: *(Hands move to puzzle pieces. Holds nobs on pieces and pulls out chicken piece.)*

Staff: *That's right; we take out the pieces of the puzzle. That is the…*

Rowan: *(Thrusts chicken puzzle piece into gap — not aligned.)*

Staff: *Oh yes; we put them back in again. That is the chicken… cluck, cluck, cluck.*

Rowan: *(Still trying to ram piece in.)*

Staff: *(Turns piece gently and then pushes child's hand so that puzzle piece slides in.) There we go!*

Rowan: *(Pulls piece out again and hits the other pieces with it.)*

While the infant is unable to do the jigsaw puzzle, he is able to participate in the activity. He is able to take out the pieces without difficulty. Although unable

to re-insert them without adult assistance (to align and to insert) he understands the social ritual, since he does attempt to put the pieces back into place. His coordination and limited experience with puzzles does not allow him to be successful without adult involvement. Similar examples of this type of socially constructed learning can be seen as adults read books to children. Adults hold the book, helping children turn the pages, and interact in ways which enable infants, toddlers, or preschoolers to make sense of the illustrations (including helping infants to look at rather than mouth the book). With jigsaw construction, as shown in the example below, Rowan, now 15 months, is able to perform more of the task than previously.

Infant at 15 months

Staff: *Look, Rowan; here are two jigsaw puzzles. Which one would you like to do? This one (points to a jigsaw puzzle with two pieces — happy and a sad face) or this one (points to farm yard puzzle)?*

Rowan: *(Looks at each as the adult points, then moves right hand towards face puzzle.)*

Staff: *This one (moves face puzzle directly in front of infant).*

Rowan: *Da, da, da, daa (moves right hand to right face and holds nob, moves left hand to left face and holds nob).*

Staff: *That's the happy face (spoken as child lifts out piece) and that's the sad face (spoken as child lifts out piece).*

Rowan: *(Lifts out puzzle pieces as indicated. Looks at adult.)*

Staff: *Yes (smiles at infant).*

Rowan: *Da, da, da (bangs pieces together — like a cymbal).*

Staff: *(Smiles at infant).*

Rowan: *(Places happy face piece into space with right hand. Moves left hand to left space and inserts sad face after a few awkward attempts).*

Staff: *That's right; we put the pieces in. That's the happy face (as infant inserts piece) and that's the sad face (as infant inserts piece).*

Rowan at 15 months is able to insert the puzzle pieces by himself. The carer does not physically assist the infant, but affirms the actions made. The adult has not only introduced the infant to puzzle solving — a social experience for both — but has scaffolded learning so that the infant is able to work independently on the task of completing the jigsaw.

With the introduction of different and more challenging puzzles, the scaffolding process begins again. More adult assistance would be initially required with a puzzle. However, since the social ritual of puzzle-solving has been established, the assistance given by the adult would not be as explicit as in the dialogue and action by the adult and baby at nine months. The scaffolding would focus on different puzzle types (more puzzle pieces, different construction techniques — layered, 3-D, seriation, etc.) and problem-solving required for puzzle completion (matching shapes, colours, etc.).

The work of Vygotsky and Bruner has shown the importance of the role of the adult in children's learning. Bruner (In Bruner & Haste, 1987:93) has said we 'know too little about learning from vicarious experience, from interaction, from media, even from tutors'. Clearly, in the example cited above, the role of the adult is crucial to children's learning. Socially constructed learning views learning as not simply being constructed independently by the child, but in conjunction with the adult through scaffolding.

Staff interact with children to stimulate curiosity and thinking 27.

Socially constructed learning

The role of staff:

- The adult initially leads conceptual development.
- She/he works together with the child on the task.
- In the first instance, the adult takes more responsibility for task completion, allowing the child to perform aspects of the task as able.
- Over time the adult hands over task-completion to the child. At this point the adult withdraws allowing the child to work independently.

The role of the child:

- The child works together with the adult on the task.
- The child performs those aspects of the task that she/he is able to; the adult does the rest.
- As the child is able, she/he does more and more of the task.
- Over time the child becomes more proficient, skilful, or cognitively able and takes over the task. At this point the child works independently on the task.
- As the child works independently — practising, refining, or extending her/his understanding — the child becomes more accomplished and can use or re-define the task to suit her/his needs.

How learning is viewed:

- Learning is a joint construction between the adult and the child. The child engages in tasks deemed too difficult for her/him without adult assistance. The child engages in these experiences as a natural part of social interaction. Cultural knowledge — the task within a social context — is introduced and learned through this scaffolding process.

Socially constructed learning provides a useful theoretical base in planning for quality staff–child interaction. The research supporting this theory has focused on different aspects of interaction — some directly related to staff and children, some more focused on adult–child interaction in the family context. In each case the importance of adult–child interaction is acknowledged. In summary, the implications of this research for staff working in early childhood centres are that:

- adult–child interaction is vital to developing children's thinking;
- routines such as toileting, nappy-changing, meal preparation, and eating are also very important learning contexts which can be utilised to develop children's thinking;
- learning is a social process and occurs as a result of adult–child interaction; and
- adult–child interaction changes over time as children take ownership of the task.

Conclusion

Quality interaction and hence learning for children is complex and requires a great deal of planning. How you foster curiosity, facilitate learning, are inclusive of gender and culture, and communicate effectively with your children will depend upon your philosophy. Below is a series of questions which may assist you with articulating and making explicit your own assumptions. Try jotting down your response to each question as you read. Your notes could provide the basis for future staff discussions on ways to facilitate quality staff–child interaction.

Our own approach — some questions to think about

1. What is learning?
2. What role do I like to take in children's learning?
3. What role do I subscribe to the children in my care?
4. How do I like the learning environment to look?
5. How much 'talk' do I encourage?
6. Do I work together with the children?
7. How do I decide upon the topic?
8. Is assessment a part of the learning program or is it separate from the program?
9. When I audio-tape teacher-child interactions and listen to them, do I:
   - do most of the talking?
   - most of the listening?
   - talk mostly about management matters, like where to find things?
   - sort out disputes?
   - pose questions (obvious or challenging)?
   - share information?
   - give feedback (positive/negative)?
   - find that I am an important part of the child's learning?
   - find that I am an observer?
   - find out what children know and then comment?
   - allow children to negotiate, or are my interactions absolute?
   - encourage children to express their opinions?
   - encourage children to seek explanations?
   - ask display questions?
   - ask genuine questions where I want to find out something I already don't know?
   - provide supporting information which clarifies why something is evaluated?
   - interact in small groups in exactly the same way (transmission) as I do in whole group situations?
   - predominantly command children to do, or to be (be good) to act (get this), or to cognise (now you decide)?
   - find that I do all of the above (balance?)?
10. How do children think and learn?

The answers to these questions will help you develop your own profile of interaction. It may be useful to compare your profile to that of your colleagues. Discuss the implications of your interactional style in terms of developing children's thinking, learning, and self-

esteem, and how it will meet individual children's needs. Once you have identified the areas that require further consideration, utilise your colleagues (perhaps at a subsequent staff meeting) to help you 'brainstorm' a range of practical responses/ strategies. Some of these ideas could be displayed on cards placed on the walls of the centre, for easy reference (examples or reminders).

The staff–child interaction that occurs in a centre or home is one of the most important elements of quality education and care. It deserves as much consideration and requires as much effort as the organisation of resources and space in a centre. However, it is probably the most difficult area to analyse effectively and change. For quality interaction to occur, staff need to analyse, plan, monitor, and assess how they are going. It is an ongoing process that can always be further developed. No matter how challenging, it is worth undertaking.

Further reading

A useful resource for staff who work with children who have English as second language is by Laurie Makin, Julie Campbell and Criss Jones Diaz (1995): *'One childhood many languages'*. NSW: Harper Education.

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